

chain nodes :

ring nodes :

chain bond

ring bonds :

1-2	1-5	1-23	2-3	3-4	4-5	4-6	5-25	6-7	7-8	7-9	8-11	8-25	9-10	9-43
10-11	11-22	12-13	12-16	12-23	13-14	14-15	15-16	15-17	16-25	17-18	18-19			
18-20	19-22	19-25	20-21	21-22	25-89	43-44	44-45	45-46	46-66	66-67	67-69			
69-70	70-71	71-74	74-75	74-76	75-77	76-78	77-78	77-90	82-83	82-87	83-84			
84-85	85-86	86-89	86-87	87-90	88-90	88-89								

exact/norm bonds :

exact bonds

2-26	2-27	3-38	6-30	9-32	10-37	11-24	13-33	14-31	14-41	17-28	20-34
21-36	21-99	22-29	23-42	25-96	33-40	34-35	35-57	36-60	37-63	38-39	39-54
40-48	41-51	67-68	76-79	79-80	82-94	83-92	84-91	85-93	88-95	97-98	

normalized bonds :  
82-83 82-87 83-84 84-85 85-86 86-87

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS 25:Atom 26:CLASS 27:CLASS 28:CLASS  
29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS  
37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:Atom 44:Atom  
45:Atom 46:Atom 47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS  
53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS 58:CLASS 59:CLASS 60:CLASS  
61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:Atom 67:Atom 68:CLASS  
69:Atom 70:Atom 71:Atom 72:CLASS 73:CLASS 74:Atom 75:Atom 76:Atom 77:Atom  
78:Atom 79:CLASS 80:CLASS 81:CLASS 82:Atom 83:Atom 84:Atom 85:Atom 86:Atom  
87:Atom 88:Atom 89:Atom 90:Atom 91:CLASS 92:CLASS 93:CLASS 94:CLASS  
95:CLASS 96:CLASS 97:CLASS 98:CLASS 99:CLASS

L1 STRUCTURE UPLOADED

=> d his

(FILE 'HOME' ENTERED AT 14:56:53 ON 29 JUL 2009)

FILE 'REGISTRY' ENTERED AT 14:57:06 ON 29 JUL 2009

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 14:57:47 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 5 TO ITERATE

100.0% PROCESSED 5 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 5 TO 234  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full  
FULL SEARCH INITIATED 14:57:57 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 63 TO ITERATE

100.0% PROCESSED 63 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

```
=> fil caplus
COST IN U.S. DOLLARS          SINCE FILE      TOTAL
                                ENTRY          SESSION
FULL ESTIMATED COST          186.36          186.58
```

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REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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```
=> s vitamin b12
      222569 VITAMIN
      40888 B12
L4      25397 VITAMIN B12
      (VITAMIN(W)B12)
```

```
=> s 14 and rhodium
      80202 RHODIUM
L5      23 L4 AND RHODIUM
```

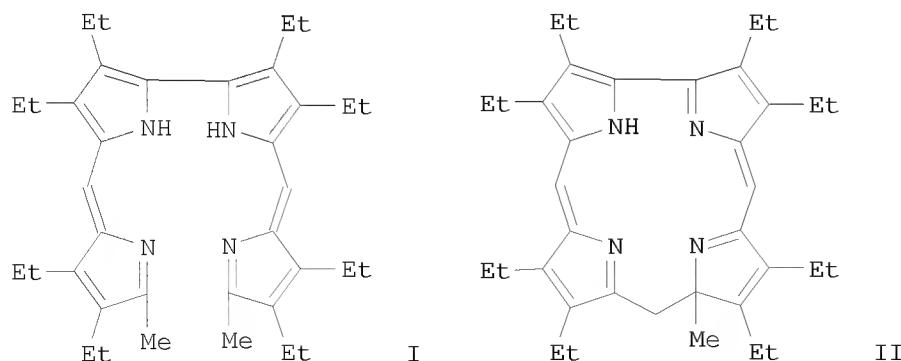
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=> s 15 and py<=2004
      25141130 PY<=2004
L6      19 L5 AND PY<=2004
```

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=> d 1-19 bib abs
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```
L6      ANSWER 1 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN
AN      2004:658486 CAPLUS
TI      Cobalt porphyrin-catalyzed diastereoselective and enantioselective
      cyclopropanation
```

AU Zhang, X. Peter; Chen, Ying  
CS Department of Chemistry, University of Tennessee, Knoxville, TN, 37996,  
USA  
SO Abstracts of Papers, 228th ACS National Meeting, Philadelphia, PA, United  
States, August 22-26, 2004 (2004), ORGN-221 Publisher: American  
Chemical Society, Washington, D. C.  
CODEN: 69FTZ8  
DT Conference; Meeting Abstract  
LA English  
AB Porphyrin complexes of transition metal ions such as iron, ruthenium,  
osmium and rhodium are known to catalyze cyclopropanation of  
alkenes. Recently, we have discovered that cobalt porphyrins, the carbene  
chemical of which has been largely unknown, are capable of catalyzing  
olefination of carbonyl compds. and cyclopropanation of alkenes with diazo  
reagents, representing the first demonstration of cobalt  
porphyrin-mediated carbene transfer reactions. Furthermore, it was found  
that dimerization of diazo compds., a common side reaction in  
metal-mediated carbene transfer processes, is minimized in cobalt  
porphyrin-based systems. This characteristic obviates the need to employ  
excess substrates and slow addition of diazo compds., unpractical strategies  
that are commonly used in existing metallocporphyrin systems for inhibition  
of the competitive side reaction. With the development of new chiral  
porphyrins, we will report our progress on cobalt porphyrin-catalyzed  
diastereoselective and enantioselective cyclopropanation. The related  
Vitamin B12 derivs.-mediated selective cyclopropanation  
will also be presented.

L6 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2002:917653 CAPLUS  
DN 138:296555  
TI Unexpected formation and structural characterisation of a novel  
rhodium B12 analogue  
AU Broering, Martin; Consul Tejero, Esther; Pfister, Andreas; Brandt, Carsten  
D.; Perez Torrente, Jesus J.  
CS Universitaet Wuerzburg, Institut fuer Anorganische Chemie, Wuerzburg,  
D-97074, Germany  
SO Chemical Communications (Cambridge, United Kingdom) (2002),  
(24), 3058-3059  
CODEN: CHCOFS; ISSN: 1359-7345  
PB Royal Society of Chemistry  
DT Journal  
LA English  
OS CASREACT 138:296555  
GI



AB The metalation reactions of the 2,2'-bidipyrrin I with different Rh(II) precursors yield the complexes  $[\text{Rh}(\text{CO})_2\text{L}]_2$  ( $\text{H}_2\text{L} = \text{I}$ ) and  $[\text{Rh}(\text{COD})(\text{HL})]$  and the unusual corrinoid  $[\text{RhL}_1\text{Cl}_2]$  ( $\text{HL}_1 = \text{II}$ ), depending only on the type of the ancillary ligand employed.  $[\text{RhL}_1\text{Cl}_2] \cdot 2\text{CH}_2\text{Cl}_2$  is monoclinic, space group  $\text{P}21/n$ ,  $Z = 4$ ,  $R_1 = 0.0961$ ,  $wR_2 = 0.2402$ .

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2000:132508 CAPLUS

DN 132:247760

TI Vitamin B12 coenzyme models: perspectives on recent developments in the chemistry of the cobaloximes and related models

AU Randaccio, Lucio

CS Dipartimento di Scienze Chimiche, Universita di Trieste, Trieste, 34127, Italy

SO Comments on Inorganic Chemistry (1999), 21(4-6), 327-376  
CODEN: COICDZ; ISSN: 0260-3594

PB Gordon & Breach Science Publishers

DT Journal; General Review

LA English

AB A review with 129 refs. Discoveries on B12 models made since 1989 are assessed in the light of the advances in structural and spectroscopic methodologies. Further studies emanating in part from these advances have confirmed, often definitively, previously identified principles describing the properties of the classic simple models (cobaloximes and iminocobaloximes) and have established some new principles defining the properties of the axial Co-C and Co-N bonds; the latter are clearly relevant to enzymic processes. Some new simple models have been proposed and studied in relation to the classic ones and to the more complicated natural cobalamins. In several cases, the influence of the steric and electronic factors have been established, sometimes in semi-quant. terms, also with the help of studies on the rhodium analogs of cobaloximes. New spectroscopic techniques have been introduced, which have been found useful in the study of the natural cobalamins. Recent structural analyses of the binding site in some B12-based enzymes have shown that the B12 cofactors bind in the base-off form, with displacement of the benzimidazole residue from cobalt and coordination of a histidine residue of the protein chain. Such observations have stimulated new expts. aimed at defining the mechanism of the Co-C homolytic cleavage in isomerases and mutases or at testing the recently proposed mechanism for the Co-C heterolytic cleavage in methionine synthase. As a consequence, the information now available on models and on cobalamins (e.g., on the nature of the Co-S bond) is much broader in scope, and these advances have prompted this new anal. of models. The exptl. aspects have advanced much more quickly than our theor. understanding, and hence further calcns., possibly based on more sophisticated approaches, are clearly required.

OSC.G 63 THERE ARE 63 CAPLUS RECORDS THAT CITE THIS RECORD (64 CITINGS)

RE.CNT 172 THERE ARE 172 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1998:55555 CAPLUS

DN 128:132418

OREF 128:25915a, 25918a

TI Hydrophobic preparations containing medium chain monoglycerides

IN New, Roger Randal Charles; Kirby, Christopher John

PA Cortecs Ltd., UK

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9800169	A1	19980108	WO 1997-GB1775	19970702 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	ZA 9705856	A	19990104	ZA 1997-5856	19970701 <--
	CA 2259233	A1	19980108	CA 1997-2259233	19970702 <--
	AU 9733526	A	19980121	AU 1997-33526	19970702 <--
	AU 709013	B2	19990819		
	EP 910411	A1	19990428	EP 1997-929411	19970702 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
	CN 1224360	A	19990728	CN 1997-196069	19970702 <--
	BR 9710179	A	19990810	BR 1997-10179	19970702 <--
	NZ 333115	A	20000623	NZ 1997-333115	19970702 <--
	JP 2000515130	T	20001114	JP 1998-503931	19970702 <--
	US 6258377	B1	20010710	US 1998-218289	19981222 <--
	KR 2000022353	A	20000425	KR 1998-710781	19981229 <--
	NO 9806211	A	19990302	NO 1998-6211	19981230 <--
	MX 9900275	A	20000331	MX 1999-275	19990104 <--
PRAI	GB 1996-13858	A	19960702		
	WO 1997-GB1775	W	19970702		

AB Hydrophobic preps. which are useful as, among other things, pharmaceutical delivery systems comprise: (i) an oil phase comprising one or more medium chain monoglycerides, such as Akoline MCM; (ii) at least one amphiphile, preferably including a phospholipid such as phosphatidyl choline; and (iii) a hydrophilic species, which may be a protein such as insulin or calcitonin or another macromol., solubilized or otherwise dispersed in the one or more glycerides. (The hydrophilic species is one that is not normally soluble in the glycerides). An example is given of preparation of a formulation containing calcitonin-phosphatidylcholine complex.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1996:58157 CAPLUS  
DN 124:127802  
OREF 124:23571a,23574a  
TI Synthesis of Extremely Large Mesoporous Activated Carbon and Its Unique Adsorption for Giant Molecules  
AU Tamai, Hisashi; Kakii, Takuhiro; Hirota, Yoshifumi; Kumamoto, Tomio; Yasuda, Hajime  
CS Faculty of Engineering, Hiroshima University, Higashi-Hiroshima, Japan  
SO Chemistry of Materials (1996), 8(2), 454-62  
CODEN: CMATEX; ISSN: 0897-4756  
PB American Chemical Society  
DT Journal  
LA English  
AB The steam invigoration of a pitch (softening points 85 and 280°) homogenized with 1-3 wt % of organo rare-earth metal complexes such as Ln(C5H5)3 or Ln(acac) (Ln = Y, Yb) at 930° provided activated carbons with an extremely high mesopore ratio, >70%. The resulted

activated carbon selectively adsorbs giant mols. such as vitamin B12, blue acid 90 dye, dextran, nystatin, and humic acid, reflecting their large mesopore vols. To understand what kind of carbon skeleton in pitch is suited for generation of high mesopore ratio, the steam invigoration of a series of condensed polynuclear aroms. (COPNA) resins prepared from naphthalene, anthracene, phenanthrene, pyrene, or perylene and p-xylene- $\alpha,\alpha'$ -diol was conducted in the presence of rare-earth metal complexes. As a result, COPNA resins containing phenanthrene, perylene, and pyrene generated large mesopore volume

OSC.G 97 THERE ARE 97 CAPLUS RECORDS THAT CITE THIS RECORD (98 CITINGS)

L6 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1995:921740 CAPLUS  
TI Thermal isomerism of [2,3,7,8,12,13,17,18-octachloro-5,10,15,20-tetrakis(4'-tertbutylphenyl)-porphyrinato]phenylethyl rhodium (III)  
AU Mak, Kin Wah; Leung, Yiu Bond; Wang, Ru-ji; Mak, Thomas C. W.; Chan, Kin Shing  
CS Department Chemistry, Chinese University Hong Kong, Shatin, Hong Kong  
SO Book of Abstracts, 210th ACS National Meeting, Chicago, IL, August 20-24 (1995), Issue Pt. 1, INOR-629 Publisher: American Chemical Society, Washington, D. C.  
CODEN: 61XGAC  
DT Conference; Meeting Abstract  
LA English  
AB [2,3,7,8,12,13,17,18-Octachloro-5,10,15,20-tetrakis(4'-tert-butylphenyl)porphyrinato] phenylethylrhodium (III) ((p-tBu)OCPRh(CH<sub>2</sub>CH<sub>2</sub>Ph)) was successfully prepared by reductive alkylation of (p-tBu)OCPRh(Cl) with BrCH<sub>2</sub>CH<sub>2</sub>Ph. Its structure was determined by single crystal X-ray crystallog. Clean thermal isomerization of (p-tBu)OCPRh(CH<sub>2</sub>CH<sub>2</sub>Ph) into (p-tBu)OCPRh(CH(CH<sub>3</sub>)Ph) was observed under anaerobic condition with a half-life estimated to be about 190 mins at 80°C. Substantial insight into the Vitamin B12 catalyzed 1,2-rearrangement can be gained from the mechanistic study of this isomerism.

L6 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1995:122868 CAPLUS  
DN 122:10078  
OREF 122:2241a,2244a  
TI Structural and solution properties of rhodoximes: the Rh analogs of cobaloximes, a vitamin B12 model  
AU Randaccio, Lucio  
CS Eip. Sci. Chim., Univ. Trieste, Trieste, 34127, Italy  
SO Croatica Chemica Acta (1994), 67(2), 235-40  
CODEN: CCACAA; ISSN: 0011-1643  
DT Journal; General Review  
LA English  
AB A review with > 11 refs. cobaloximes, LCo(DH<sub>2</sub>) where L = neutral ligand, DH = monoanion of dimethylglyoxime and X = monoanionic ligand, have been widely studied in sol and in the solid state. Since then, they have been proposed as a model of the vitamin B12 system. These studies have furnished a foundation for understanding the mechanism of the Co-C bond cleavage in the vitamin B12 coenzyme. However, problems relating to the role played by the electronic and steric properties of the ligands around Co require further investigation. Therefore, the study has been extended to the pyRh(DH)<sub>2</sub>R complexes (rhodoximes). In fact, the ionic radius of Rh, larger than that of Co, should diminish the steric interaction between the ligands. The NMR and kinetic results indicate that the transmission of the electronic effects from R to the trans neutral ligand in rhodoximes is similar to that observed in cobaloximes: the trans-influence and the trans-effect have the same

trend as already found in the Co analogs. Structural data agree about a less hindered coordination around the metal center than in the corresponding cobaloximes. Variation of the M-C distances with an increase in the bulk of axial ligand is significantly smoother in the Rh than in the Co complexes. Correspondingly, the trans-influence and -effect appear to be more enhanced in rhodoximes. Comparison between the behavior of cobaloximes and rhodoximes is discussed on the basis of electronic and steric influences.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L6 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1989:601374 CAPLUS  
 DN 111:201374  
 OREF 111:33353a,33356a  
 TI Sunscreens containing porphyrins as UV-absorbers and chelating agents  
 IN Kumagai, Myako  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01135887	A	19890529	JP 1987-293183	19871120 <--
PRAI JP 1987-293183		19871120		
OS MARPAT 111:201374				
AB UV-absorbing compns. contain porphyrins and chelating agents. The compns. effectively absorb UV-A, have good storage stability, and are safe and useful as sunscreens. A sunscreen cream comprised stearic acid 10.0, cetyl alc. 1.0, glycerin monomyristate 5.0, iso-Pr myristate 7.0, oleyl alc. 4.0, Et 2-ethylhexyl-p-methoxycinnamate 3.0, Na Fe chlorophyllin 2.0, diethanolamine cetyl phosphate 3.0, propylene glycol 6.0, di-Na edetate 0.2, perfume 0.2, an antiseptic agent 0.2, and H2O to 100% by weight				

L6 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1989:601373 CAPLUS  
 DN 111:201373  
 OREF 111:33353a,33356a  
 TI Sunscreens containing porphyrins as UV-absorbers  
 IN Nishida, Juichi; Yoshimura, Masanori; Sakai, Hideo; Tagaki, Shigemi; Kumagai, Myako  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01135886	A	19890529	JP 1987-293182	19871120 <--
PRAI JP 1987-293182		19871120		
OS MARPAT 111:201373				
AB UV-absorbing compns. contain porphyrins. The compns. effectively absorb UV-A, have good storage stability, and are safe and useful as sunscreens. A sunscreen cream comprised stearic acid 10.0, cetyl alc. 1.0, glycerin monomyristate 5.0, iso-Pr myristate 7.0, oleyl alc. 4.0, Et 2-ethylhexyl-p-methoxycinnamate 3.0, Na Fe chlorophyllin 2.0, diethanolamine cetyl phosphate 3.0, propylene glycol 6.0, di-Na edetate 0.2, perfume 0.2, an antiseptic agent 0.2, and H2O to 100% by weight				

L6 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1989:107022 CAPLUS  
DN 110:107022  
OREF 110:17495a,17498a  
TI Template reactions: axial-ligation and macrocyclization of alpha-furilglyoximates and alpha-aminedioximates of cobalt(III) and rhodium(III)  
AU Hussain, M. Sakhawat; Al-Mohdhar, H. M.; Al-Arfaj, A. R.  
CS Dep. Chem., King Fahd Univ. Pet. Miner., Dhahran, 31261, Saudi Arabia  
SO Journal of Coordination Chemistry (1988), 18(4), 339-49  
CODEN: JCCMBQ; ISSN: 0095-8972  
DT Journal  
LA English  
AB Seventeen cobaloximes were prepared from  $[\text{HON:C(R)}]_2$  ( $\text{R} = \text{Me}$ , 2-furyl) complexes of Co and Rh and monodentate ligands having different inductive and steric requirements. The 6-coordinate H-bonded macrocycles initially formed were used as metal templates to prepare the corresponding  $\text{BF}_2$ -capped macrocycles. Characterization of the complexes was by magnetic, spectroscopic,  $^1\text{H}$  and  $^{13}\text{C}$  NMR measurements as well as elemental anal. The cobaloximes reported are quite stable and mimic the metal core of several biol. mols. such as vitamin B12.  
OSC.G 37 THERE ARE 37 CAPLUS RECORDS THAT CITE THIS RECORD (38 CITINGS)

L6 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1984:81412 CAPLUS  
DN 100:81412  
OREF 100:12279a,12282a  
TI Influence of metal substitution on vitamin B12 binding to human intrinsic factor and transcobalamins I and II  
AU Elsenhans, Bernd; Rosenberg, Irwin H.  
CS Dep. Med., Univ. Chicago, Chicago, IL, 60637, USA  
SO Biochemistry (1984), 23(5), 805-8  
CODEN: BICHAW; ISSN: 0006-2960  
DT Journal  
LA English  
AB Metal-free, Zn, Cu, and Rh analogs of vitamin B12 were synthesized to further characterize structural requirements for the binding to human intrinsic factor, transcobalamin I, and transcobalamin II. The binding affinities of the various analogs were studied by competition against cyano[ $^{57}\text{Co}$ ]cobalamin. When albumin-coated charcoal was used for the separation of free and bound corrinoids, the relative 50% inhibition indexes were determined. The influence of metal substitution was similar among the 3 binding proteins. For analogs with a strong coordinative linkage between the heterocyclic base and the central metal ion, similar to that with Co (e.g., zincobalamin and cyanorhodibalamin), the indexes ranged from 0.65 to 2.35 for all 3 binding proteins. Analogs in which coordination is impossible (hydrogenobalamin and dicyanorhodibalamin) exhibited markedly reduced binding with indexes between 10 and 160. Cupribalamin showed 50% inhibition indexes ranging from 2.3 to 5.0, thus suggesting a weak coordinative bond between Cu and the 5,6-dimethylbenzimidazole moiety. These results emphasize the importance of the coordinative linkage between the central metal ion and the nucleotide moiety for optimal recognition by vitamin B12-binding proteins.  
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1980:514476 CAPLUS  
DN 93:114476  
OREF 93:18333a,18336a  
TI The unusual, slow redox properties of copper, nickel, and rhodium cobalamins  
AU Rubinson, Kenneth A.; Caja, Josip; Hurst, Roger W.; Itabashi, Eiki;

CS Kenyhercz, Thomas M.; Heineman, William R.; Mark, Harry B., Jr.  
SO Chem. Lab., Univ. Cambridge, Cambridge, CB2 1EW, UK  
Journal of the Chemical Society, Chemical Communications (1980),  
(2), 47-8  
CODEN: JCCCAT; ISSN: 0022-4936  
DT Journal  
LA English  
AB Thin-layer spectroelectrochem. studies showed that the rates of reduction and oxidation of the title cobalamins at -0.96 to +1.25 V vs. normal H electrode are virtually zero, which suggests that the use of other complexes to model the redox properties of vitamin B12 compds. is questionable.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L6 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1978:235 CAPLUS  
DN 88:235  
OREF 88:47a,50a  
TI The effect of rhodium and copper analogs of cobalamin on human cells in vitro  
AU Carmel, Ralph; Koppenhagen, Volker B.  
CS Dep. Med., Univ. South. California Sch. Med., Los Angeles, CA, USA  
SO Archives of Biochemistry and Biophysics (1977), 184(1), 135-40  
CODEN: ABBIA4; ISSN: 0003-9861  
DT Journal  
LA English  
AB Rh and Cu analogs of various cobalamins competed effectively with cyanocobalamin for binding by human serum transcobalamins. Methylrhodibalamin [53848-96-7] and 5'-deoxyadenosylrhodibalamin [53880-55-0] also competed with cyanocobalamin for serum-mediated uptake by human blood cells and bone marrow cells, though the competition was relatively weak when compared to the effective competition for transcobalamin II binding. None of the analogs affected normoblastic bone marrow cells, using deoxyuridine suppression of [3H]thymidine incorporation into DNA as the index of vitamin B12 sufficiency. In fact, methylrhodibalamin actively corrected the abnormality in vitamin B12-deficient bone marrow. However, 5'-deoxyadenosylrhodibalamin worsened the vitamin B12-deficient behavior of megaloblastic bone marrow and inhibited its correction by vitamin B12 and may even have adversely affected one of the five normoblastic marrows tested.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1976:534112 CAPLUS  
DN 85:134112  
OREF 85:21425a,21428a  
TI Photochemistry of biologically important transition metal complexes. I. Cyanocobalamin and related corrin complexes of rhodium(III)  
AU Vogler, Arnd; Hirschmann, R.; Otto, H.; Kunkely, Horst  
CS Inst. Chem., Univ. Regensburg, Regensburg, Fed. Rep. Ger.  
SO Berichte der Bunsen-Gesellschaft (1976), 80(5), 420-4  
CODEN: BBPCAX; ISSN: 0940-483X  
DT Journal  
LA English  
AB The quantum yield of the well known photoaquation of cyanocobalamin (vitamin B12) was determined (.vphi. .apprx. 10-4) and is independent of the irradiating wavelength. In addition, cyanocobalamin does not show the characteristic corrin phosphorescence. The excitation energy initially absorbed by the corrin ligand is rapidly transferred to a reactive excited ligand field (LF) state which lies below the lowest corrin triplet. This conclusion is supported by the behavior of corrin

complexes of Rh(III). Contrary to cyanocobalamin the complex dicyanorhodium(III)-corrin does not undergo a photoaquaion but emits a strong corrin phosphorescence. These observations are consistent with the assumption that the lowest excited LF state lies now well above the lowest corrin triplet. If both axial cyanide ligands which have a strong field are replaced by the weak-field ligand chloride, the energy of the lowest excited LF state should drop considerably. The behavior of the dichlororhodium(III)-corrin complex indicates that the lowest corrin triplet lies only slightly below the excited LF state which is responsible for the photoreactivity. The reactive LF state which is responsible for the photoreactivity. The reactive LF state may be populated from the lowest corrin triplet by thermal activation. At 77° K the dichlororhodium(III)-corrin complex shows a strong corrin phosphorescence. At room temperature this emission is essentially quenched and the complex undergoes a photoaquaion.

OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L6 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1976:508685 CAPLUS  
DN 85:108685  
OREF 85:17453a,17456a  
TI Organorhodium and iridium porphyrin complexes, a model for vitamin B12  
AU Ogoshi, Hisanobu; Setsune, Junichiro; Omura, Takashi; Yoshida, Zenichi  
CS Dep. Synth. Chem., Kyoto Univ., Kyoto, Japan  
SO Organotransition-Met. Chem., Proc. Jpn.-Am. Semin., 1st (1975),  
Meeting Date 1974, 345-54. Editor(s): Ishii, Yoshio; Tsutsui, Minoru.  
Publisher: Plenum, New York, N. Y.  
CODEN: 3200AX  
DT Conference; General Review  
LA English  
AB A lecture with 8 refs.

L6 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1975:29643 CAPLUS  
DN 82:29643  
OREF 82:4737a,4740a  
TI Methylrhodibalamin and 5'-deoxyadenosylrhodibalamin, the rhodium analogs of methylcobalamin and cobalamin coenzyme  
AU Koppenhagen, Volker B.; Elsenhans, Bernd; Wagner, Fritz; Pfiffner, Joseph J.  
CS Inst. Molekularbiol. Forsch., Stoeckheim, Fed. Rep. Ger.  
SO Journal of Biological Chemistry (1974), 249(20), 6532-40  
CODEN: JBCHA3; ISSN: 0021-9258  
DT Journal  
LA English  
GI For diagram(s), see printed CA Issue.  
AB Treatment of  $\alpha$ -(5,6-dimethylbenzimidazolyl)hydrogenobamide with Rh carbonyl chloride[Rh(CO)<sub>2</sub>Cl]<sub>2</sub> in EtOH-AcOH in the presence of NaOAc produced chlororhodibalamin (I) as the principal Rh corrinoid. I, when reacted with AgNO<sub>3</sub> was converted into aquorhodibalamin (II). In the absence of O, I and II were readily reduced by NaBH<sub>4</sub> to rhodibalamin s, the corresponding rhodium(I) complex. Addition of MeI or 5'-ido-5'-deoxyadenosine to rhodibalamin s yielded as the major products methylrhodibalamin (III) and 5'-deoxyadenosylrhodibalamin, resp. The structure of III was demonstrated by the synthesis of methylrhodibalamin-<sup>14</sup>C containing the expected radioactive label in stoichiometric proportion. III exhibited a signal for 3 protons in NMR spectrum at -1.64 ppm, proving the attachment of the methyl group to Rh. The structure of 5'-deoxyadenosylrhodibalamin was confirmed by its conversion into dicyanorhodibalamin, adenine, and the cyanhydrin of D-erythro-2,3-dihydroxypent-4-enal in the presence of CN<sup>-</sup>. The Rh

analogue of cobalamin coenzyme was also obtained when *Propionibacterium shermanii* was grown in the absence of Co with chloro- or aquorhodibalamin as precursors. The new compds. were characterized by their spectral and electrophoretic properties and their biol. activity. All 4 analogues were active as weak antimetabolites to vitamin B12 in suppressing the growth of *Lactobacillus leichmanii* (ATCC 7830) and *Escherichia coli* 113-3.

OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L6 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1974:48300 CAPLUS  
DN 80:48300  
OREF 80:7881a,7884a  
TI  $\alpha$ -(5,6-Dimethylbenzimidazolyl)rhodibamide and rhodibinamide, the rhodium analogs of vitamin B12 and cobinamide  
AU Koppenhagen, Volker B.; Wagner, Fritz; Pfiffner, Joseph J.  
CS Inst. Molekularbiol. Forsch., Stoeckheim, Fed. Rep. Ger.  
SO Journal of Biological Chemistry (1973), 248(23), 7999-8002  
CODEN: JBCHA3; ISSN: 0021-9258  
DT Journal  
LA English  
AB Monocyano- $\alpha$ -(5,6-dimethylbenzimidazolyl)rhodibamide, dicyano- $\alpha$ -(5,6-dimethylbenzimidazolyl)rhodibamide (I), and dicyanorhodibinamide were prepared by insertion of Rh into the metal-free analog of vitamin B12 using [Rh(CO)2Cl]2. The monocyano form of the Rh analog of vitamin B12 was also obtained by treatment of the corresponding dicyano form with AgNO3. The new compds. are characterized by their spectral and electrophoretic properties and their biol. activity. While I is biol. inactive, the corresponding monocyano form is active as antimetabolite to vitamin B12 in suppressing the growth of *Lactobacillus leichmanii*.

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L6 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1967:428823 CAPLUS  
DN 67:28823  
OREF 67:5427a,5430a  
TI Reactions of nitrous oxide with some transition metal complexes  
AU Banks, Reginald G. S.; Henderson, R. J.; Pratt, John M.  
CS Oxford Univ., Oxford, UK  
SO Chemical Communications (London) (1967), (8), 387-8  
CODEN: CCOMA8; ISSN: 0009-241X  
DT Journal  
LA English  
AB Dilute solns. (.apprx.10-4M) of the Co(I) derivative of vitamin B12 reacted spontaneously with N2O with a color change of gray-green to yellow to give the Co(II) complex which was identified by its spectrum. BH4- reduces the Co(II) and -(II) complexes to the Co(I) complex and a cyclic reaction occurs; when left overnight in contact with a solution containing excess BH4-, N2O was completely reduced to N. Blue-green solns. of bis(dimethylglyoximato)cobalt(I) in 50% aqueous EtOH reacted spontaneously with N2O with a color change to brown. When excess BH4- was used to keep the Co complex reduced, N2O was completely reduced to N within 30 min. Solns. of [Co(Ph2PCH2CH2PPh2)2] Br (.apprx.10-2M) in EtOH or C6H6 reduced N2O to N to give a very air-sensitive greenish complex. Blue solns. of bis(bipyridyl)cobalt(I) perchlorate in 50% aqueous EtOH reacted spontaneously with N2O with a color change to yellow; when left overnight with solns. containing excess BH4-, N2O was completely reduced to N. N2O also reacts with bis(bipyridyl)rhodium(I) chloride in 50% aqueous EtOH and with the complexes which are formed on reducing an aqueous solution of [Co(CN)5]3- with BH4-. The following showed no significant reaction with

N2O: [Co(PhNC)5]ClO4 in EtOH; Fe(CO)5, Na[Mn(CO)5], and Na2[Cr(CO)5] all in C4H8O; and [Co(Ph2PCH2CH2PPh2)2] and [IrCl(PPh3)2CO] both in C6H6.  
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L6 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1957:26525 CAPLUS  
DN 51:26525  
OREF 51:5251f-i,5252a-b  
TI The amount of microelements in blood and various internal organs of man  
AU Leonov, V. A.  
SO Vestsi Akad. Navuk Belarus. S.S.R., Ser. Biyal. Navuk (1956),  
(No. 1), 151-4  
DT Journal  
LA Russian  
AB In man 74 chemical elements are present, of which 65 are microelements. Cerebral and nerve tissues contain most of the microelements; in nucleus caudatus Cr predominates, in nucleus ruber Bi, in substantia nigra Ni, in thalamus opticus V. In brain tissue of the human embryo in g./100g. ash there was found: Cu 0.01 (3-months old embryo), 0.01 (5-months), 0.05 (6-months), 0.1 (7-months), 0.1 (8-months), and 0.5 (new-born baby); Zn 0.05, 0.05, 0.05, 0.1, 0.1, and 0.5; Cd 0, 0.1, 0.0001, 0.0001, 0.0001, and 0.0005; Al 0.01, 0.01, 0.05, 0.05, 0.001, and 0.1; Li 0.001, 0.01, 0.01, 0.01, 0.05, and 0.1; Ti 0.005, 0.005, 0.005, 0.01, 0.01, and 0.01, V traces, traces, traces, 0.001, 0.001, and 0.001; Mn 0.001, 0.001, 0.005, 0.01, 0.00, and 0.05; and Ni 0.001, 0.005, 0.005, 0.01, 0.01, and 0.05, resp. In the cell nuclei of the cerebrum an increase of Cu, Mn, and Zn takes place during the first 2 postnatal years. Data are tabulated also for Ag, Cu, Zn, Ba, Cd, Al, Li, Ti, V, Cr, Mo, Mn, Co, Ni, Pb, Sn, and Rh in gray substance, white substance, and in cerebellum at 6 and 7 months postnatal ages, the concentration of the microelements ranging from 0 to traces (Cr, Co, Sn, Rh in gray substance; Ag, Sr, Ba, Cd, V, Cr, Mo, Sn, Rh in white substance and cerebellum) to 0.2-0.3 g./100 g. ash of the tissue (Cu in gray substance). The Co (average for 6-27 detns.) in liver and spleen of human embryos was found to be at 12-19 weeks 23.8 ± 8.9 and 206.6, 20-25 weeks 26.1 ± 9.8 and 90.8 ± 70.5, 26-38 weeks 21.7 ± 4.2 and 24.9 ± 15.9, and 39-40 weeks 27 ± 8.7 and 13.2 γ/100 g. tissue, resp. The amts. of Ni in various organs of the embryos changed as follows: at 20-25 weeks 384.5 (liver) 177.0 (spleen), 125.8 (parathyroid gland), 232.0 (thyroid gland), 233.5 (pancreas), and 78.5 (kidneys); at 26-38 weeks 81.4, 56.8, 63.7, 204.6, 110.1, and 42.9; and at 39-40 weeks 142.5, 36.3, 57.62, 132.8, 73.0, and 40.1 γ/100 g. tissue, resp. The amount of Co in the blood of the new-born children of both sexes is very low (5-5.89), which however increases rapidly during the first 3 postnatal years (up to 12.28-12.31 γ/100 ml. blood), followed by a slow decrease with older age; the blood hemoglobin changes inversely with the Co concentration of the blood. Only a small portion of the Co content of the blood is incorporated into vitamin B12.

=> s 14 and platinum  
256217 PLATINUM  
L7 64 L4 AND PLATINUM

=> s 17 and py<=2004  
25141130 PY<=2004  
L8 31 L7 AND PY<=2004

=> d 1-31 bib abs

L8 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2007:278375 CAPLUS  
DN 147:373609

TI Electrochemical dehalogenation reaction of DDT mediated by hydrophobic vitamin B12  
AU Hisaeda, Yoshio; Shimakoshi, Hisashi; Tokunaga, Mami; Baba, Tatsushi  
CS Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan  
SO Proceedings - Electrochemical Society (2004), 2004-10(Analytical, Mechanistic, and Synthetic Organic Electrochemistry), 13-16  
CODEN: PESODO; ISSN: 0161-6374  
PB Electrochemical Society  
DT Journal  
LA English  
AB The controlled-potential electrolysis of 1,1-bis(4-chlorophenyl)-2,2,2-trichloroethane (DDT) was carried out in the presence of a hydrophobic vitamin B12, heptamethyl cobyrinate perchlorate. DDT was dechlorinated to form 1,1-bis(4-chlorophenyl)-2,2-dichloroethane (DDD), 1,1-bis(4-chlorophenyl)-2,2-dichloroethylene (DDE), 1-chloro-2,2-bis(4-chlorophenyl)ethylene (DDMU) and 1,1,4,4-tetrakis(4-chlorophenyl)-2,3-dichloro-2-butene (TTDB) (E/Z), and quant. recovery of the catalyst after the electrolysis was confirmed by the electronic spectroscopy. A photo-sensitive intermediate having a cobalt-carbon bond formed during the electrolysis was characterized by the electronic spectroscopy. The mechanism for the formation of various dehalogenated products was investigated by various spectroscopic methods.  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2005:1027995 CAPLUS  
DN 143:301986  
TI Stimuli-responsive hydrogel microdomes integrated with genetically engineered proteins for high-throughput screening of pharmaceuticals  
IN Daunert, Sylvia; Deo, Sapna Kamlakar; Ehrick, Jason Douglas; Browning, Tyler William; Bachas, Leonidas G.  
PA USA  
SO U.S. Pat. Appl. Publ., 27 pp., Cont.-in-part of U.S. Ser. No. 905,041.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050208469	A1	20050922	US 2004-996068	20041124
	US 20020068295	A1	20020606	US 2001-905041	20010713 <--
PRAI	US 2000-218036P	P	20000713		
	US 2001-905041	A2	20010713		

AB A hydrogel microdome that can swell in response to a stimuli or target mol. is formed by polymerizing a mixture comprising a monomer capable of forming a hydrogel with a biopolymer. An array of hydrogel microdomes can be formed on a substrate by microspotting the mixture and polymerizing. The array can be used for high-throughput screening of analytes as well as for use as an actuator and biosensor using the swelling property of the hydrogel.

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L8 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2004:511615 CAPLUS  
DN 142:85496  
TI Pemetrexed (ALIMTA), A Novel Multitargeted Antineoplastic Agent  
AU Adjei, Alex A.  
CS Mayo Clinic and Foundation, Departments of Oncology, Rochester, MN, USA

SO Clinical Cancer Research (2004), 10(12, Pt. 2), 4276s-4280s  
CODEN: CCREF4; ISSN: 1078-0432  
PB American Association for Cancer Research  
DT Journal; General Review  
LA English  
AB A review. Pemetrexed (ALIMTA, LY231514, MTA) is a novel antimetabolite that inhibits at least three enzymes involved in the folate pathway. These enzymes are thymidylate synthase, dihydrofolate reductase, and glycinamide ribonucleotide formyltransferase. Pemetrexed has demonstrated clin. activity in non-small cell lung cancer as well as in a broad array of other solid tumors, including mesothelioma, breast, colorectal, bladder, cervical, gastric and pancreatic cancer. In non-small cell lung cancer, single-agent activity has been documented in the first- and second-line settings in Phase II and Phase III trials. Promising activity has also been demonstrated when pemetrexed is combined with platinum compds. (cisplatin, carboplatin, and oxaliplatin), vinorelbine, and gemcitabine. Low level dietary supplement of folic acid and vitamin B12 has significantly decreased the mucosal and bone marrow toxicity of pemetrexed without compromising its antitumor effect.

OSC.G 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)  
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2004:455368 CAPLUS  
DN 141:81493  
TI Pemetrexed alone and in combination with platinum compounds in the management of malignant mesothelioma  
AU Suwanrusme, Harit; Meyer, Mario L.; Green, Mark R.  
CS Hollings Cancer Center, Medical University of South Carolina, Charleston, USA  
SO Clinical Lung Cancer (2004), 5(Suppl. 2), S56-S60  
CODEN: CLCLCA; ISSN: 1525-7304  
PB Cancer Information Group  
DT Journal; General Review  
LA English  
AB A review. Malignant pleural mesothelioma is an aggressive but rare malignancy with a dismal prognosis. It is traditionally resistant to chemotherapy. Antifolate agents have recently shown promising data in the treatment of this malignancy. Pemetrexed is a multitargeted antifolate inhibitor of thymidylate synthase and other folate-dependent enzymes that has emerged as one of the most active agents in this disease. Several phase I/II trials of pemetrexed as a single agent or in combination with a platinum drug have demonstrated considerable activity in mesothelioma. In a recently published phase III randomized study, pemetrexed/cisplatin showed a significant improvement in survival, response rate, and quality of life compared with single-agent cisplatin. In addition, several trials reported that folic acid and vitamin B12 supplementation significantly reduced the toxicity observed with the use of pemetrexed without affecting the efficacy of the drug.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2004:219844 CAPLUS  
DN 140:259101  
TI Health enhancement system  
IN Schakel, Karl W.; Schakel, Karl G.  
PA USA  
SO U.S. Pat. Appl. Publ., 18 pp.  
CODEN: USXXCO

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040052871	A1	20040318	US 2003-612321	20030701 <--
	US 7273607	B2	20070925		
	US 20090004168	A1	20090101	US 2007-861132	20070925
PRAI	US 2002-393717P	P	20020701		
	US 2003-612321	A3	20030701		
AB	The invention provides a health enhancement system establishing a health enhancement program through which may be provided a group of natural products, vitamins and minerals, amino acids, herbs and essential oils that may be helpful in aiding the body in fighting the growth of cancers and the progression of other diseases and in reducing the neg. side effects of cancer and cancer treatment, and other diseases and their treatment. At least one embodiment of the invention involves a packaging system of the group of natural products, vitamins and minerals, amino acids, herbs and essential oils that the health enhancement system may comprise.				

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8	ANSWER 6 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN
AN	2004:98988 CAPLUS
DN	141:102538
TI	Preparation and electrochemical behaviour of hydrophobic vitamin B12 covalently immobilized onto platinum electrode
AU	Shimakoshi, Hisashi; Tokunaga, Mami; Kuroiwa, Keita; Kimizuka, Nobuo; Hisaeda, Yoshio
CS	Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan
SO	Chemical Communications (Cambridge, United Kingdom) (2004), (1), 50-51 CODEN: CHCOFS; ISSN: 1359-7345
PB	Royal Society of Chemistry
DT	Journal
LA	English
AB	Hydrophobic vitamin B12 was covalently immobilized onto a platinum electrode surface, and the immobilized complex exhibits Co(II)/Co(I) redox couple and in situ the Co(I) species reacts with phenethyl bromide to form styrene under irradiation with visible light with a turnover number of over 6000 for 1 h.
OSC.G	7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
RE.CNT	16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8	ANSWER 7 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN
AN	2003:849457 CAPLUS
DN	140:206506
TI	Reductive molecular transformations on vitamin B12 modified electrodes
AU	Hisaeda, Yoshio; Shimakoshi, Hisashi; Tokunaga, Mami; Nakazato, Aki
CS	Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan
SO	Proceedings - Electrochemical Society (2003), 2003-12(Mechanistic and Synthetic Aspects of Organic and Biological Electrochemistry), 109-112 CODEN: PESODO; ISSN: 0161-6374
PB	Electrochemical Society
DT	Journal
LA	English

AB Two types of vitamin B12 modified electrodes were prepared by a sol-gel method and a chemical reaction on the surface of the electrode. A hydrophobic vitamin B12 was readily trapped on ITO electrode by a sol-gel reaction to form a noncovalent-type B12 modified electrode. On the other hand, a new hydrophobic vitamin B12, which has a trimethylsilyl group, was covalently immobilized into Pt electrode. Both vitamin B12 modified electrodes have high reactivity for organic halides to form dehalogenated products under the electrochem. reductive conditions.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2003:632744 CAPLUS

DN 139:154947

TI Pharmaceutical compositions containing vitamins and/or minerals to alleviate withdrawal symptoms by caffeine abuse

IN Lapa, Natalia; Lapa, Sergei

PA UK

SO Brit. UK Pat. Appl., 11 pp.  
CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2384984	A	20030813	GB 2002-2812	20020207 <--
PRAI	GB 2002-2812		20020207		

AB Compns. for effecting withdrawal symptoms and balancing of nutritional deficiency, developed due to the caffeine abuse, and aiding in the gradual cessation or lessening of caffeine use or abuse are disclosed. The pharmaceutical compns. are comprise a combination of caffeine with nutritional supplementation of vitamins and/or minerals and a carrier inert or physiol. active. According to another aspect of the invention it is directed to the correction of the nutritional deficiencies, which exist due to individual's chronic caffeine intake and plays an important part in the withdrawal syndrome. One or more vitamins and/or one or more minerals, chemical or natural in origin, may be used in the composition of the invention. Thus, a composition contained caffeine citrate 50, thiamine 12, pyridoxine 50, NaHCO3 100, and dextrose monohydrate up to 3 mg.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2002:363047 CAPLUS

DN 137:222171

TI Determination of main components in vitamin B tablet by capillary electrophoresis-electrochemical detection

AU Wei, Shoulian; Deng, Guanghui; Zheng, Yining

CS Department of Chemistry, Zhaoqing College, Zhaoqing, 526061, Peop. Rep. China

SO Fenxi Ceshi Xuebao (2002), 21(2), 32-35  
CODEN: FCEXES; ISSN: 1004-4957

PB Fenxi Ceshi Xuebao Bianjibu

DT Journal

LA Chinese

AB The separation and detection of main components vitamin B1, B12, B6 and C in compound vitamin B tablet were studied by home-made capillary electrophoresis apparatus with electrochem. detector. The effects of working electrode potential, concentration and pH value of running buffer, separation voltage

and injection time on the CE-ED determination were discussed. A platinum electrode with diameter of 300  $\mu\text{m}$  was used as the working electrode at potential of +0.5 V. Vitamin B1, B6, B12 and C can be well separated in 15 mM Tris-1 mM H3BO3 buffer at pH 9.0 within 5 min. The linearity between peak current and concentration of VB1, VB2, VB6 and VC existed in the range of 2.1 mg/L-1.0 g/L, 6.0 mg/L- 0.80 g/L, 1.4 mg/L-0.72 g/L and 0.97 mg/L-0.44 g/L, resp. The detection limits of 0.50, 1.0, 0.65 and 0.40 mg/L, and the RSD (n = 5) of 2.4, 3.0, 3.1 and 2.5% and the average recoveries (n = 5) of 99, 102, 98 and 100% were obtained for VB1, VB12, VB6 and VC, resp.

L8 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2001:592148 CAPLUS

DN 135:157733

TI Medical devices having improved antimicrobial/antithrombogenic properties

IN Siman, Jaime; Dove, Jeff

PA Edwards Lifesciences Corp., USA

SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6273875	B1	20010814	US 1998-135873	19980817 <--
PRAI	US 1998-135873		19980817		

AB An enhanced antimicrobial antithrombogenic medical device is formed by using an oligodynamic metal and a noble metal with a polymer, and forming the mixture into a device. By using low concns. of conductive polymers or iontophoretic compds., non-conductive, or highly plasticized polymers can be likewise blended into an iontophoretic-capable composition. The surface of the device may be treated with a solvent to remove the top surface of the polymer and create surface voids in the composition in order to expose previously encapsulated iontophoretic materials. This surface treatment results in a larger reaction area of the iontophoretic capable composition that produces larger yields of bacteriostatic oligodynamic ions for a longer duration thereby increasing the antimicrobial effectiveness of the composition. The surface of the antimicrobial composition may be treated with an anticoagulant such as heparin or heparin complexed with a quaternary ammonium salt for an added bacteriostatic effect. Polyurethane was loaded with silver, platinum, and carbon black powders and 1-5% poly(N-methyl-4-vinylpyridinium chloride) and the mixture was extruded until properly mixed and molded into a single-lumen infusion catheter. The catheter was dipped into enough THF at room temperature to remove the polymer from the surface of the device, then the catheter was placed in an isopropanol solution containing quaternary ammonium heparin complex to deposit it

onto the surfaces of the catheter.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:283948 CAPLUS

DN 132:313704

TI Therapeutic liposome composition and method of preparation

IN Allen, Theresa M.; Uster, Paul; Martin, Francis J.; Zalipsky, Samuel

PA Sequeus Pharmaceuticals, Inc., USA

SO U.S., 17 pp., Cont.-in-part of U.S. 5,891,469.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI	US 6056973 CA 2505445 US 5891468 EP 1214935 EP 1214935	A A1 A A2 A3	20000502 19980423 19990406 20020619 20030618	US 1998-138480 CA 1997-2505445 US 1997-949046 EP 2002-76092 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, AL	19980821 <-- 19971010 <-- 19971010 <-- 19971010 <-- 19971010 <--
	US 6316024	B1	20011113	US 2000-517224	20000302 <--
	US 20010038851	A1	20011108	US 2001-876707	20010607 <--
	US 7122202	B2	20061017		
	AU 761204	B2	20030529	AU 2001-83637	20011025 <--
	US 20020172711	A1	20021121	US 2001-16324	20011210 <--
	US 6936272	B2	20050830		
	US 20030215490	A1	20031120	US 2002-115566	20020402 <--
	US 20040191250	A1	20040930	US 2004-821018	20040407 <--
	US 20040191307	A1	20040930	US 2004-821021	20040407 <--
	US 20050136064	A1	20050623	US 2005-49848	20050202
	US 20050169980	A1	20050804	US 2005-50012	20050202
	US 20060246126	A1	20061102	US 2006-479437	20060630

PRAI	US 1996-28269P US 1997-949046 AU 1997-49878 CA 1997-2267904 EP 1997-912775 US 1998-138480 US 2000-517224 US 2001-876707 US 2005-50012	P A2 A3 A3 A3 A3 A3 A3 A1 A1	19961011 19971010 19971010 19971010 19971010 19980821 20000302 20010607 20050202
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AB Reagents for use in preparing a therapeutic liposome composition sensitized to a

target cell are described. The reagents include a liposomal composition composed of pre-formed liposomes having an entrapped therapeutic agent and a plurality of targeting conjugates composed of a lipid, a hydrophilic polymer and a targeting ligand. The therapeutic, target-cell sensitized liposome composition is formed by incubating the liposomal composition with a selected conjugate. Liposomes were prepared by mixing partially hydrogenated soybean phosphatidylcholin, cholesterol, and mPEG-DSPE at a molar ratio of 55:40:3 in chloroform and/or methanol in a round bottom flask. The solvents were removed and the dried lipid film produced was hydrated with a buffer to produce large multilamellar vesicles. An anti-E-selectin Fab fragment was conjugated to PEG-DSPE to form a targeting conjugate. An adequate amount of the Fab-PEG-DSPE conjugate was added to a suspension of the above liposomes and incubated overnight at room temperature for the insertion of the conjugate into preformed liposomes.

OSC.G 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:144747 CAPLUS

DN 132:185461

TI Probiotic, lactic acid-producing bacteria for treatment of gastrointestinal infections

IN Farmer, Sean

PA Ganeden Biotech, Inc., USA

SO PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000010582	A2	20000302	WO 1999-US17862	19990806 <--
	WO 2000010582	A3	20000713		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6461607	B1	20021008	US 1999-370793	19990805 <--
	CA 2341503	A1	20000302	CA 1999-2341503	19990806 <--
	AU 9953415	A	20000314	AU 1999-53415	19990806 <--
	AU 772332	B2	20040422		
	EP 1107772	A2	20010620	EP 1999-939056	19990806 <--
	EP 1107772	B1	20060419		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY				
	JP 2002523372	T	20020730	JP 2000-565902	19990806 <--
	AT 323503	T	20060515	AT 1999-939056	19990806
	US 20030031659	A1	20030213	US 2002-264745	20021004 <--
	US 20060099197	A1	20060511	US 2005-305507	20051216
	US 20080233104	A1	20080925	US 2008-148965	20080423
PRAI	US 1998-97594P	P	19980824		
	US 1999-370793	A2	19990805		
	WO 1999-US17862	W	19990806		
	US 2002-264745	A1	20021004		
	US 2005-305507	A1	20051216		
AB	The present invention discloses compns. and methodologies for the utilization of probiotic organisms in therapeutic compns. More specifically, the present invention relates to the utilization of one or more species or strains of lactic acid-producing bacteria, preferably strains of <i>Bacillus coagulans</i> , for the control of gastrointestinal tract pathogens, including antibiotic-resistant gastrointestinal tract pathogens, and their associated diseases by both a reduction in the rate of colonization and the severity of the deleterious physiol. effects of the colonization of the antibiotic-resistant pathogen. In addition, the present invention relates to the utilization of therapeutic compds. comprised of lactic acid-producing bacteria and anti-microbial agents such as antibiotics, anti-fungal compds., anti-yeast compds., or anti-viral compds. The present invention also discloses methodologies for: (i) the selective breeding and isolation of probiotic, lactic acid-producing bacterial strains which possess resistance or markedly decreased sensitivity to anti-microbial agents (e.g., antibiotics, anti-fungal agents, anti-yeast agents, and anti-viral agents); and (ii) treating or preventing bacteria-mediated infections of the gastrointestinal tract by use of the aforementioned probiotic bacterial strains with or without the concomitant administration of antibiotics. While the primary focus is on the treatment of gastrointestinal tract infections, the therapeutic compns. of the present invention may also be administered to buccal, vaginal, optic, and like physiol. locations. For example, a formulation contained <i>Bacillus coagulans</i> 1 x 10 <sup>9</sup> spores (10 mg), ciprofloxacin 250 mg, Mg citrate 10 mg, and microcryst. cellulose 80 mg.				
OSC.G	12	THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)			
RE.CNT	12	THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD			
		ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L8 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 2000:116908 CAPLUS  
 DN 132:150908

TI Methods for increasing the solubility of nutritional materials using probiotic lactic acid-producing bacteria

IN Farmer, Sean

PA Ganeden Biotech, Inc., USA

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000007606	A2	20000217	WO 1999-US17671	19990806 <--
	WO 2000007606	A3	20000518		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2339643	A1	20000217	CA 1999-2339643	19990806 <--
	AU 9957719	A	20000228	AU 1999-57719	19990806 <--
	AU 770099	B2	20040212		
	EP 1102595	A2	20010530	EP 1999-945016	19990806 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002522393	T	20020723	JP 2000-563291	19990806 <--
	EP 1719518	A1	20061108	EP 2006-75064	19990806
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRAI	US 1998-95786P	P	19980807		
	US 1999-369016	A2	19990805		
	EP 1999-945016	A3	19990806		
	WO 1999-US17671	W	19990806		

AB The present invention discloses therapeutic compns. and methods of use of probiotic, non-lactic acid-producing bacteria to increase the solubility and bioavailability of nutritional materials, preferably vitamins and minerals, within the gastrointestinal tract of an animal or human. The therapeutic compns. of the present invention preferably utilize *Bacillus* species, and most preferably *Bacillus coagulans*, as the lactic acid-producing, probiotic bacterial species. The therapeutic compns. disclosed herein may also contain one or more vitamins or minerals so as to exogenously augment the intake of these substances.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1999:690932 CAPLUS

DN 131:303420

TI Silicon implants for administering substances and methods of producing implants

IN Canham, Leigh Trevor; Barrett, Christopher Paul; Bowditch, Andrew Paul; Cox, Timothy Ingram; Wright, Peter John

PA The Secretary of State for Defence, UK

SO PCT Int. Appl., 75 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9953898	A1	19991028	WO 1999-GB1185	19990416 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2328996	A1	19991028	CA 1999-2328996	19990416 <--
	AU 9936146	A	19991108	AU 1999-36146	19990416 <--
	AU 755703	B2	20021219		
	EP 1071398	A1	20010131	EP 1999-918102	19990416 <--
	EP 1071398	B1	20040526		
	R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 2003513001	T	20030408	JP 2000-544305	19990416 <--
	NZ 507353	A	20030725	NZ 1999-507353	19990416 <--
	EP 1407764	A1	20040414	EP 2003-29353	19990416 <--
	R: DE, ES, FR, GB, IT, SE				
	ES 2222704	T3	20050201	ES 1999-918102	19990416
	CN 1195493	C	20050406	CN 1999-807447	19990416
	CN 1679958	A	20051012	CN 2005-10008032	19990416
	HK 1037331	A1	20051125	HK 2001-108245	20011122
	KR 2006039032	A	20060504	KR 2006-707373	20060417
PRAI	GB 1998-8052	A	19980417		
	CN 1999-807447	A3	19990416		
	EP 1999-918102	A3	19990416		
	WO 1999-GB1185	W	19990416		
	KR 2000-711494	A3	20001016		
AB	A porous silicon implant impregnated with a beneficial substance, such as a micromineral required for healthy physiol., is implanted s.c. and is entirely corroded away over the following months/yr to release the micromineral in a controlled manner. In a second embodiment the implant may have a large number of holes which contain beneficial substance and which are closed by bio-erodible doors of different thickness so as to stagger the release of the beneficial substance over time as the doors are breached. Porous silicon disks, 10 mm in diameter and 0.3 mm in thickness, were implanted at s.c. sites in guinea pigs for 26 wk. All implantation sites showed little evidence of any significant tissue reaction to the implants after this period.				

OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8	ANSWER 15 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN
AN	1998:595831 CAPLUS
DN	130:4534
TI	Heterogeneous polyelectrolyte gels as stimuli-responsive membranes
AU	Turner, Josephine S.; Cheng, Yu-Ling
CS	Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, ON, M5S 3E5, Can.
SO	Journal of Membrane Science (1998), 148(2), 207-222
	CODEN: JMESDO; ISSN: 0376-7388
PB	Elsevier Science B.V.
DT	Journal
LA	English
AB	Stimuli-responsive membranes may act as "on-off switches" or "permeability valves", producing patterns of pulsatile release, where the period and rate of mass transfer can be controlled by external or environmental triggers (e.g. pH, temperature, elec. field). In this work, composite-heterogeneous polyelectrolyte gel (composite-HPG) membranes

consisting of poly(methacrylic acid) (PMAA) gel particles dispersed within a polydimethylsiloxane (PDMS) network were developed and evaluated as pH-responsive membranes. The mechanism of permeability control for caffeine and vitamin B12 through composite-HPG membranes was determined to be a synergistic function of membrane hydration and the percolating volume fraction of PMAA gel. Larger changes in permeation as a function of pH were achieved when both hydration and percolation effects occurred together than when either of these effects occurred on their own. Vitamin B12 permeation was observed when the hydrated gel volume fraction was above approx. 0.38, but not below. Furthermore, the percolating fraction of composite-HPG membranes containing 28% (dry basis) PMAA gel particles was manipulated via pH to fall above (pH 7) or below (pH 3) this transition in permeability, resulting in membranes that delivered solutes of high mol. weight (vitamin B12) with large on/off delivery ratios (160).

OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)  
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1998:55555 CAPLUS

DN 128:132418

OREF 128:25915a,25918a

TI Hydrophobic preparations containing medium chain monoglycerides  
 IN New, Roger Randal Charles; Kirby, Christopher John

PA Cortecs Ltd., UK

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9800169	A1	19980108	WO 1997-GB1775	19970702 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	ZA 9705856	A	19990104	ZA 1997-5856	19970701 <--
	CA 2259233	A1	19980108	CA 1997-2259233	19970702 <--
	AU 9733526	A	19980121	AU 1997-33526	19970702 <--
	AU 709013	B2	19990819		
	EP 910411	A1	19990428	EP 1997-929411	19970702 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
	CN 1224360	A	19990728	CN 1997-196069	19970702 <--
	BR 9710179	A	19990810	BR 1997-10179	19970702 <--
	NZ 333115	A	20000623	NZ 1997-333115	19970702 <--
	JP 2000515130	T	20001114	JP 1998-503931	19970702 <--
	US 6258377	B1	20010710	US 1998-218289	19981222 <--
	KR 2000022353	A	20000425	KR 1998-710781	19981229 <--
	NO 9806211	A	19990302	NO 1998-6211	19981230 <--
	MX 9900275	A	20000331	MX 1999-275	19990104 <--
PRAI	GB 1996-13858	A	19960702		
	WO 1997-GB1775	W	19970702		

AB Hydrophobic preps. which are useful as, among other things, pharmaceutical delivery systems comprise: (i) an oil phase comprising one or more medium chain monoglycerides, such as Akoline MCM; (ii) at least

one amphiphile, preferably including a phospholipid such as phosphatidyl choline; and (iii) a hydrophilic species, which may be a protein such as insulin or calcitonin or another macromol., solubilized or otherwise dispersed in the one or more glycerides. (The hydrophilic species is one that is not normally soluble in the glycerides). An example is given of preparation of a formulation containing calcitonin-phosphatidylcholine complex.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1997:734996 CAPLUS

DN 128:70061

OREF 128:13530h,13531a

TI Synthesis of sulfonamidoquinoline azo derivatives and their analytical applications

AU Zhao, Jianwei; Zhao, Deping; Zhao, Hua; Xu, Qiheng

CS Kunming Inst. Metallurgy, Kunming, 650031, Peop. Rep. China

SO Huaxue Shiji (1997), 19(5), 257-260, 272

CODEN: HUSHDR; ISSN: 0258-3283

PB Huagongbu Huaxue Shiji Keji Qingbao Zhongxinzhan

DT Journal

LA Chinese

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Six azo derivs. of 8-sulfonamidoquinoline were synthesized (I-VI) and characterized by IR spectrometry and elemental anal. The acid dissociation consts. of I and IV were determined by spectrophotometric method. The chromogenic and fluorometric properties and reactivities of the above six reagents with metal ions were studied. I, IV and V are sensitive chromogenic reagents for Cu(II), Co(II), Ni(II), Pd(II), Pt(II) and Au(III), and all of them are sensitive fluorometric reagents for Cu(II) and Co(II). III and VI are also good fluorometric reagents for palladium(II). Several new good anal. systems of spectrophotometry, fluorometry and polarog. were established with these reagents.

L8 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1997:343825 CAPLUS

DN 127:65376

OREF 127:12499a,12502a

TI Bond-shift rearrangement during hydrogenolysis of neopentyl iodide on group VIII metal catalysts. An analog of the mechanism of action of vitamin B12

AU Amir-Ebrahimi, Valia; Rooney, John J.

CS School of Chemistry, Queen's University, Belfast, Northern Ireland BT9 5AG, Ire.

SO Journal of Molecular Catalysis A: Chemical (1997), 120(1-3), 89-92

CODEN: JMCCF2; ISSN: 1381-1169

PB Elsevier

DT Journal

LA English

OS CASREACT 127:65376

AB Hydrogenolysis of Me<sub>3</sub>CCH<sub>2</sub>I on reduced Co or Pt dispersed on MgO support yields increasing amts. of Me<sub>2</sub>CHe and 2-methylbutenes in addition to neopentane as with increasing temperature at 50-150°. These results support the idea that a  $\pi$ -complexed half-reaction state is

simultaneously involved in activation of the C-I bond and in the evident 1,2-Me shift. This  $\pi$ -complex mechanism is the same as that first suggested for neopentane isomerism during hydrogenolysis at  $\geq 200^\circ$  on Pt catalysts. The present results also support the contention that similar  $\pi$ -complexes are responsible for analogous C-skeleton rearrangements mediated by coenzyme B12.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)  
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1994:284577 CAPLUS  
DN 120:284577  
OREF 120:50001a,50004a  
TI Photochemistry of vitamin B12 derivatives. New observations and conclusions.  
AU Kunkely, H.; Pawlowski, V.; Vogler, A.  
CS Inst. Anorg. Chem., Univ. Regensburg, Regensburg, D-8400, Germany  
SO Conference on Coordination Chemistry (1993), 14th(Contributions to Development of Coordination Chemistry), 363-6  
CODEN: PCCHDB; ISSN: 0139-9535  
DT Journal  
LA English  
AB Irradiation of cobalamins of the general type Co(III)(corrin)(N-base)X which contain C(CN)3-, Pt(CN)42-, and Au(CN)2- as the sixth ligand X leads to the photosubstitution of X by the solvent. The reactive excited states are most likely of the LF type. In the case of methylcobalamin the well-known photohomolysis of the Co-C bond is suggested to be induced by LLCT excitation.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L8 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1994:128943 CAPLUS  
DN 120:128943  
OREF 120:22613a,22616a  
TI Bioinorganic kinetics at elevated pressure. Application of stopped-flow, T-jump, flash-photolysis and pulse-radiolysis techniques  
AU Van Eldik, Rudi  
CS Inst. Inorg. Chem., Univ. Witten/Herdecke, Witten, 5810, Germany  
SO NATO ASI Series, Series C: Mathematical and Physical Sciences (1993), 401(High Pressure Chemistry, Biochemistry and Materials Science), 329-44  
CODEN: NSCSDW; ISSN: 0258-2023  
DT Journal  
LA English  
AB In this contribution the application of various high pressure kinetic techniques in mechanistic studies of bioinorg. systems are presented. These systems include the antitumor activity of platinum metal complexes, the substitution behavior of cobalamin (vitamin B12), the transport of small mols. such as O<sub>2</sub> and CO by biol. carriers, and long-distance electron-transfer processes in cytochrome c. Volume profiles for such reactions are discussed where available, and the mechanistic interpretation of the observed pressure dependencies are presented. Present and future goals are discussed in order to demonstrate the possible application of high pressure kinetic techniques.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1992:478572 CAPLUS  
DN 117:78572  
OREF 117:13595a,13598a  
TI Characterization of poly(dimethyldiallylammonium chloride) and its

application to electrochemical sensors  
 AU Tieman, Robert S.; Rauen, Karen L.; Heineman, William R.; Huber, Edward W.  
 CS Edison Sens. Technol. Cent., Univ. Cincinnati, Cincinnati, OH, 45221-0172,  
 USA  
 SO Chemical Sensor Technology (1992), 4, 125-43  
 CODEN: CSETER  
 DT Journal  
 LA English  
 AB Poly(DMDAAC) can be immobilized on electrode surfaces by crosslinking with  
 gamma radiation. The resulting polymer films have properties that are  
 potentially useful for sensors. In aqueous solution, poly(DMDAAC) films can  
 impart selectivity based on electrostatic attraction of anions and  
 discrimination based on mol. size. Dry films possess sufficient conductivity  
 to  
 function as the supporting electrolyte in a solid-state voltammetry cell.  
 Such a cell is capable of detecting atmospheric O by reduction of O that  
 partitions  
 into the polymer film. The hygroscopic nature of the film enables it to  
 be used in the form of a solid-state conductance cell for the measurement  
 of relative humidity.  
 OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1992:455959 CAPLUS  
 DN 117:55959  
 OREF 117:9771a,9774a  
 TI Method for treating eye disorders by reducing  
 12(R)-hydroxyeicosatetraenoic acid and 12(R)-hydroxyeicosatrienoic acid  
 levels  
 IN Abraham, Nader G.; Schwartzman, Michal L.; Dunn, Michael W.; Levere,  
 Richard D.  
 PA USA  
 SO PCT Int. Appl., 13 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9204905 W: AU, CA, FI, JP, KR, NO, SU RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE	A1 A	19920402 19920407	WO 1991-US6535 US 1990-583186	19910910 <-- 19900914 <--
	US 5102670	A	19920315	CA 1991-2092722	19910910 <--
	CA 2092722	A1	19920415	AU 1991-86102	19910910 <--
	AU 9186102	A	19930630	EP 1991-916704	19910910 <--
	EP 548208	A1	19961120		
	EP 548208 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE	B1			
	AT 145332	T	19961215	AT 1991-916704	19910910 <--
	ES 2093713	T3	19970101	ES 1991-916704	19910910 <--
PRAI	US 1990-583186	A	19900914		
	WO 1991-US6535	A	19910910		

AB A heme oxygenase inducing agent, in an amount sufficient to increase levels  
 of heme oxygenase in the eye and thereby reduce or regulate the amount of  
 hydroxyeicosapolyenoic acids, is used for treating or preventing ocular  
 swelling and corneal-conjunctival inflammation. Administration of SnCl<sub>2</sub>  
 in a collagen lens placed under gas impermeable scleral contact lenses in  
 rabbits resulted in decrease eye swelling induced by the contact lenses.  
 There was no epithelial edema, nor was there neovascularization. Also,  
 increased levels of the 2 title metabolites were decreased.

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L8 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1989:601374 CAPLUS  
 DN 111:201374  
 OREF 111:33353a,33356a  
 TI Sunscreens containing porphyrins as UV-absorbers and chelating agents  
 IN Kumagai, Myako  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01135887	A	19890529	JP 1987-293183	19871120 <--
PRAI JP 1987-293183		19871120		
OS MARPAT 111:201374				
AB UV-absorbing compns. contain porphyrins and chelating agents. The compns. effectively absorb UV-A, have good storage stability, and are safe and useful as sunscreens. A sunscreen cream comprised stearic acid 10.0, cetyl alc. 1.0, glycerin monomyristate 5.0, iso-Pr myristate 7.0, oleyl alc. 4.0, Et 2-ethylhexyl-p-methoxycinnamate 3.0, Na Fe chlorophyllin 2.0, diethanolamine cetyl phosphate 3.0, propylene glycol 6.0, di-Na edetate 0.2, perfume 0.2, and H2O to 100% by weight				

L8 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1989:601373 CAPLUS  
 DN 111:201373  
 OREF 111:33353a,33356a  
 TI Sunscreens containing porphyrins as UV-absorbers  
 IN Nishida, Juichi; Yoshimura, Masanori; Sakai, Hideo; Tagaki, Shigemi; Kumagai, Myako  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01135886	A	19890529	JP 1987-293182	19871120 <--
PRAI JP 1987-293182		19871120		
OS MARPAT 111:201373				
AB UV-absorbing compns. contain porphyrins. The compns. effectively absorb UV-A, have good storage stability, and are safe and useful as sunscreens. A sunscreen cream comprised stearic acid 10.0, cetyl alc. 1.0, glycerin monomyristate 5.0, iso-Pr myristate 7.0, oleyl alc. 4.0, Et 2-ethylhexyl-p-methoxycinnamate 3.0, Na Fe chlorophyllin 2.0, diethanolamine cetyl phosphate 3.0, propylene glycol 6.0, di-Na edetate 0.2, perfume 0.2, and H2O to 100% by weight				

L8 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 1988:578844 CAPLUS  
 DN 109:178844  
 OREF 109:29491a,29494a  
 TI Role of monomer in  $\gamma$ -irradiated dimethyldiallylammmonium chloride-modified electrodes  
 AU Huber, Edward W.; Heineman, William R.  
 CS Edison Sensor Technol. Cent., Univ. Cincinnati, Cincinnati, OH, 45221-0172, USA  
 SO Analytical Chemistry (1988), 60(22), 2467-72  
 CODEN: ANCHAM; ISSN: 0003-2700

DT Journal  
LA English  
AB Com. available poly(dimethyldiallylammonium chloride) (polyDMDAAC) solns. were found by NMR to contain DMDAAC monomer. Polymerization of this monomer by  $\gamma$  irradiation results in the formation of insol. networks that can be immobilized on electrode surfaces. The immobilization process is aided by the high porosity of the graphite electrodes used. The permeability of these polyDMDAAC electrodes to solution species can be controlled by varying the amount of monomer polymerized,. The feasibility of immobilizing macromols. onto electrode surfaces by polymerization of monomers was studied by immobilizing polyDMDAAC (no DMDAAc monomer present) in a network of poly(N-vinylpyrrolidone)/N-vinylpyrrolidone.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L8 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1985:228082 CAPLUS  
DN 102:228082  
OREF 102:35697a,35700a  
TI Influence of intermediate decomposition rate on electrode potential of an air cathode  
AU Hirai, Toshiro; Yamaki, Junichi  
CS Ibaraki Elec. Commun. Lab., Nippon Telegr. Teleph. Public Corp., Tokai, 319-11, Japan  
SO Denki Kagaku oyobi Kogyo Butsuri Kagaku (1985), 53(2), 145-9  
CODEN: DKOKAZ; ISSN: 0366-9297  
DT Journal  
LA Japanese  
AB Catalytic activity towards H<sub>2</sub>O<sub>2</sub> decomposition of vitamin B12, Fe and Co-phthalocyanines, Pt black and activated charcoal was evaluated from the volume of O<sub>2</sub> generated by the reaction. The activity was in parallel with the concentrate of H<sub>2</sub>O<sub>2</sub> deduced from open-circuit potentials.  
The anodic side reaction was hence considered to be smaller than the anodic partial reaction of the O<sub>2</sub>/H<sub>2</sub>- couple in this system.

L8 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1971:498663 CAPLUS  
DN 75:98663  
OREF 75:15605a,15608a  
TI Methylation by methyl vitamin B12  
AU Williams, R. J. P.; Agnes, G.; Bendle, S.; Hill, H. A. O.; Williams, F. R.  
CS Inorg. Chem. Lab., Univ. Oxford, Oxford, UK  
SO Journal of the Chemical Society [Section] D: Chemical Communications (1971), (15), 850-1  
CODEN: CCJDAO; ISSN: 0577-6171  
DT Journal  
LA English  
AB Me vitamin B12 transfers Me groups to Hg(II) and Tl(III) by an acid base reaction, and to Pt(II) and Au(I) by an oxidation-reduction reaction as both Pt(II) and Pt(IV), or Au(I) and Au(III) are required.

L8 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1967:429454 CAPLUS  
DN 67:29454  
OREF 67:5539a,5542a  
TI Isolation of methyl-B12 from Escherichia coli B N5-methyl-H<sub>4</sub>-folate-homocysteine vitamin-B12 transmethylase  
AU Taylor, Robert Thomas; Weissbach, Herbert

CS Lab. of Clin. Biochem., Natl. Heart Inst., Bethesda, MD, USA  
SO Biochemical and Biophysical Research Communications (1967),  
27(3), 398-404  
CODEN: BBRCA9; ISSN: 0006-291X  
DT Journal  
LA English  
AB Evidence that a methyl -14C - B12 (5,6 - dimethylbenzimidazolylmethylcobamide) prosthetic group is formed upon incubation of the title enzyme (I) with either methyl-14C-H4-folate, or with S-adenosylmethionine-methyl-14C (II) is presented. In order to obtain 14C-labeled enzymes, the following incubation mixts. were used: phosphate buffer pH 7.4, 20 micromoles; N5-methyl-14C-H4-folate (16,500 counts/min./millimicromole), 10 millimicromoles; S-adenosylmethionine, 10 millimicromoles; dithiothreitol (DTT) 5 micromoles; FMNH2, 50 millimicromoles; platinum oxide, 0.1 mg., and I, 0.55 mg. Incubations were for 15 min. at 37° under N. In order to obtain a 14C-labeled enzyme from II, N5-methyl-14C-H4 folate was omitted and 10 millimicromoles of II were added. The radioactive protein was precipitated by with Cl3CCO2H, or obtained by Sephadex gel filtration. Anal. data showed 1 14CH3 in the protein per 1 vitamin B12 residue. In order to isolate the radioactive compound, the incubation mixture was scaled up 12-16-fold and the 14C-labeled enzyme was chromatographed on Sephadex in the dark. All the procedures were performed in the dark. Following precipitation with cold 10% Cl3CCO2H and 2 extns. with hot 80% EtOH, 200 millimicromoles of unlabeled methyl-B12 was added to the EtOH exts. (containing 4% of the activity) and the extract dried under N. The radioactive ethanolic extract was identified as methyl-14C-B12 chemical, enzymically, and chromatographically.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L8 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1966:465642 CAPLUS  
DN 65:65642  
OREF 65:12236h,12237a-b  
TI Alkylcobaloximes and their relation to alkylcobalamins  
AU Schrauzer, G. N.; Windgassen, R. J.  
CS Shell Develop. Co., Emeryville, CA  
SO Journal of the American Chemical Society (1966), 88(16), 3738-43  
CODEN: JACSAT; ISSN: 0002-7863  
DT Journal  
LA English  
AB Methods of preparation of the remarkably stable alkylcobaloximes RCo(Q2H2)Z (with R = alkyl, Q = dianions of 1,2-dioximes, Z = base) are described. These new and unusual organometallic complexes of cobalt are compared with the alkyl derivs. of vitamin B12 with which they bear a remarkable resemblance. Alkyl-cobaloximes reacted with BF3 etherate forming cyclic oxime boronic esters of composition RCo(Q2Z2F4)Z. Preparation of the first alkyl aquocobaloximes, RCo(Q2H2)H2O, is also reported. These compds. may be dehydrated without cleavage of the CoC bonds to complexes of oomph. RCo(Q2H2) which are isoelectronic with bis(dimethylglyoximato)nickel. For further comparison to analogous vitamin B12 derivs., binuclear cobaloximes containing the unit Co(CH2)nCo (n = 3, 4) have been synthesized. The complex with n = 3 yields cyclopropane on photolysis or pyrolysis. The reactivity of the Co-C bonds in alkylcobaloximes is discussed and several ligand-exchange reactions are described. 21 references.

OSC.G 66 THERE ARE 66 CAPLUS RECORDS THAT CITE THIS RECORD (66 CITINGS)

L8 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1960:93876 CAPLUS  
DN 54:93876  
OREF 54:17801e-f

TI The complexing tendencies of cyanocobalamin with inorganic compounds.  
Heteromolybdates and heavy metal chlorides  
AU Havemeyer, Ruth N.; Higuchi, Takeru  
CS Univ. of Wisconsin, Madison  
SO Journal of the American Pharmaceutical Association, Scientific Edition (1960), 49, 356-60  
CODEN: JAPMA8; ISSN: 0095-9553  
DT Journal  
LA Unavailable  
AB Phosphotungstic acid, phosphomolybdc acid, the Na, Ni, and Mn salts of phospho-12-molybdc acid and the chlorides of Au, Pt, and Pd formed slightly soluble adducts with cyanocobalamin (I). Some of the reagents changed the absorption spectrum of I in the system. The effect was a function of the concentration of the reagent but independent of pH.

L8 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1956:28847 CAPLUS  
DN 50:28847  
OREF 50:5860d-f  
TI The hydrogenation of vitamin B12  
AU Ellingboe, John L.; Morrison, John J.; Diehl, Harvey  
CS Iowa State Coll., Ames  
SO Iowa State College Journal of Science (1955), 30, 263-8  
CODEN: ISMJAF; ISSN: 0096-2783  
DT Journal  
LA Unavailable  
AB During its hydrogenation, vitamin B12 absorbed almost 5 atoms of H per mol. (mol. weight = 1350). The cyanide was reduced to CH<sub>3</sub>NH<sub>2</sub> and the Co(III) to Co(II). RCo(III) CN + 5/2H<sub>2</sub> → CH<sub>3</sub>NH<sub>2</sub> + RCo(II), (vitamin B12r). The rate of hydrogenation increased markedly with increase in amount of the Pt catalyst. Reoxidn. of the vitamin B12r formed one equivalent of base, (2RCo(II) + 1/2O<sub>2</sub> + H<sub>2</sub>O → 2RCoOH), but required nearly 202. CO<sub>2</sub>, CO, and at least one other gas which is not an unsatd. hydrocarbon were liberated. The volume of unidentified gas was 0.6 mol per mol of vitamin B12r. Treatment of the oxidized product with HCN did not cause any evolution of gas but did produce a substance which has the same absorption spectrum as B12. This does not account for all of the extra O.

=> s 14 and (ruthenium or rhenium or palladium or iridium or copper)  
111448 RUTHENIUM  
39946 RHENIUM  
191041 PALLADIUM  
49540 IRIDIUM  
1054507 COPPER  
L9 1767 L4 AND (RUTHENIUM OR RHENIUM OR PALLADIUM OR IRIDIUM OR COPPER)

=> s 19 and py<=2004  
25141130 PY<=2004  
L10 761 L9 AND PY<=2004

=> s 110 and binuclear  
18310 BINUCLEAR  
L11 0 L10 AND BINUCLEAR

=> s 110 and dinuclear  
28904 DINUCLEAR  
L12 1 L10 AND DINUCLEAR

=> d bib abs

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2004:836830 CAPLUS  
DN 142:32081  
TI Vitamin B12 as a ligand for technetium and  
rhenium complexes  
AU Kunze, Susanne; Zobi, Fabio; Kurz, Philipp; Spingler, Bernhard; Alberto,  
Roger  
CS Institute of Inorganic Chemistry, University of zurich, Zurich, 8057,  
Switz.  
SO Angewandte Chemie, International Edition (2004), 43(38),  
5025-5029  
CODEN: ACIEF5; ISSN: 1433-7851  
PB Wiley-VCH Verlag GmbH & Co. KGaA  
DT Journal  
LA English  
OS CASREACT 142:32081  
AB Robust complexes with a central {Co-CN-Re(Tc)} feature are formed when the  
cyanide ligand in vitamin B12 acts as bridging ligand  
between Re and Tc carbonyl complexes. This concept paves the way for  
radiolabeling of vitamin B12 or metal-mediated  
coupling of bioactive mols. The crystal structures of 2 Re complexes were  
determined. One of the Re complexes were characterized by cyclic voltammetry.  
OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)  
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l10 and metal carbonyl#  
1945082 METAL  
198219 CARBONYL#  
8943 METAL CARBONYL#  
(METAL(W)CARBONYL#)  
L13 0 L10 AND METAL CARBONYL#

=>

---Logging off of STN---

=>  
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	201.84	388.42
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-41.82	-41.82

STN INTERNATIONAL LOGOFF AT 15:13:59 ON 29 JUL 2009